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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Dean R. Duffy

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09/05/2003

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EXAMINER

GREENE, JASON M

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/977,057	<b>Applicant(s)</b> DUFFY, DEAN R.	
	<b>Examiner</b> Jason M. Greene	<b>Art Unit</b> 1724	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9 and 21 is/are rejected.
- 7) ☒ Claim(s) 10-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8</u> . | 6) <input type="checkbox"/> Other: _____                                    |

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## DETAILED ACTION

### *Response to Amendment*

1. The indicated allowability of claims 5-9 and 21 is withdrawn in view of the newly discovered Japanese reference. Rejections based on the newly cited reference follow.

### *Claims*

2. With regard to claim 1, the Examiner suggests Applicants change the word "form" in line 5 to the word "frame" to correct an apparent typographical error.
3. With regard to claim 6, the Examiner suggests Applicants change the word "space" in line 2 to the word "spaced" to correct a minor grammatical informality.
4. Claim 11 recites the limitation "...and the side wall of the support frame is positioned within the side wall channel of the hold down frame" in lines 4-5. From Applicants' disclosure (particularly Fig. 7), the Examiner has assumed that the "side wall channel of the hold down frame" is the channel formed between the gasket side wall and the media engagement elements. However, since the claim only recites, "the side wall channel of the hold down frame", it could be possible to interpret the side wall channel as being the channel formed between the wall portion (as recited in claim1) and

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the media engagement elements. If the Examiner's assumption is correct, it is suggested that Applicants' amend claim 11 to more precisely recite that the channel of the hold down frame is the channel formed between the gasket side wall and the media engagement elements.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1, 2, 5, 6, 7, 9, and 21 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese Published Patent Application JP 2001-62232.

With regard to claim 1, JP 2001-62232 discloses a filter product comprising filtration media (11) and a frame assembly (13) provided along at least a portion of the filtration media, the filter product having an input face and a output face of the filtration media for permitting carrier fluid to pass therethrough while removing a filtrate component, the frame assembly comprising a support frame (15) having at least side frame component (15a) and at least one end frame component (15b) with each side frame component having a length and extending along at least the portion of the filtration media, the support frame side frame component comprising a plurality of media engagement elements (17) arranged in series and in supporting contact with and

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proximal to an edge of the filtration media on a first side of the filtration media, and a hold down frame (14) having at least one side frame component (14a) and at least one end frame component (14b) with each side frame component having a length and extending along at least the portion of the filtration media, the hold down frame side frame component comprising a plurality of media engagement elements (16) arranged in series and in supporting contact with and proximal to at least a portion of the edge of the filtration media on a second side of the filtration media, wherein the support frame and the hold down frame are interactively assembled together (21,22,23) to provide the frame assembly proximal to at least a portion of the edge portion of the filtration media with the media engagement elements of the support frame interacting with the media engagement elements of the hold down frame to support the filtration media in between by contacting the filtration media at its first and second sides, and the support frame and the hold down frame further including a wall portion (14f,15f) spaced from its media engagement elements so as to define a channel (14d,15d) positioned to run along the portion of the edge of the filtration media in Figs. 1-9 and paragraphs [0007] to [0021] of the English language translation.

With regard to claim 2, JP 2001-62232 discloses the filtration media (11) being positioned within a compression zone (area between media engagement elements 16 and 17) between the media engagement elements of the support frame and the hold down frame and further extends beyond the compression zone toward the wall portion that is spaced from the media engagement elements in Figs. 3 and 5.

With regard to claim 5, JP 2001-62232 discloses the media engagement elements comprising tooth-like projections defining a series of peaks and troughs, and side media engagement elements of the supporting frame mesh with side media engagement elements of the hold down frame in Figs. 1, 2, 4, 6, 8, and 9.

With regard to claim 6, JP 2001-62232 discloses the support frame (15) and the hold down frame (14) each comprising a pair of spaced side frame components (14a,15a) and a pair of end frame components (14b,15b) with each side frame component comprising the plurality of media engagement members (16,17) arranged in series along the side frame components, and the media engagement elements comprising tooth-like projections defining a series of peaks and troughs so that side media engagement elements of the supporting frame mesh with side media engagement elements of the hold down frame in Figs. 1-9.

With regard to claim 7, JP 2001-62232 discloses the filtration media (11) comprising a pleated media positioned between the side media engagement elements of the support frame and the hold down frame on spaced sides of the filter product, wherein the supported filtration media extends beyond the side media engagement elements in Figs. 1-9.

With regard to claim 9, JP 2001-62232 discloses each support frame side component comprising a sidewall (15f) that is spaced from its respective side media engagement elements (17) by a wall portion (15e) interconnected between the side media engagement elements and the spaced sidewalls so as to define a channel (15d) in between in Fig. 5.

With regard to claim 21, JP 2001-62232 discloses a filter product comprising filtration media (11) and a frame assembly (13) provided along at least a portion of the filtration media, the filter product having an input face and a output face of the filtration media for permitting carrier fluid to pass therethrough while removing a filtrate component, the frame assembly comprising a support frame (15) having a length and extending along at least the portion of the filtration media, the support frame comprising a wall portion (15f) and at least one media engagement element (17) spaced from the wall portion and arranged in supporting contact with and proximal to an edge of the filtration media on a first side of the filtration media, and a hold down frame (14) having a length and extending along at least the portion of the filtration media, the hold down frame comprising a wall portion (14f) and at least one media engagement element (16) spaced from the wall portion and arranged in supporting contact with and proximal to the edge of the filtration media on a second side of the filtration media, wherein the support frame and the hold down frame are interactively assembled together (21,22,23) to provide the frame assembly proximal to at least a portion of the edge of the filtration media with the media engagement elements of the support frame interacting with the

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media engagement elements of the hold down frame to support the filtration media in between by contacting the filtration media at its first and second sides, and the wall portion (15f) of the support frame is positioned between the media engagement element and the wall portion of the hold down frame in Figs. 1-9 and paragraphs [0007] to [0021] of the English language translation. Since the upper portion of the wall portion of the support frame is secured inside the lower portion of the wall portion of the hold down frame when the filter product is assembled, the wall portion of the support frame is seen as being positioned between the media engagement element and the wall portion of the hold down frame.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001-62232.

JP 2001-62232 does not disclose the filtration media extending toward the wall portion by a distance at least equal to twice the thickness of the filtration media.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the size of the filtration media of JP 2001-62232 such that the filtration media extends toward the wall portion by a distance at least equal



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to twice the thickness of the filtration media in that such is merely a choice of design.

See *In re Rose*, 105 USPQ 237 and *In re Reven*, 156 USPQ 679. The Examiner notes that so long as the filtration media of JP 2001-62232 extends beyond the compression zone, the same seal will be formed between the filtration media and the frame assembly regardless of the distance the filtration media extends towards the wall portion.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001-62232 in view of Cronia et al.

JP 2001-62232 does not disclose the pleated media comprising particulate matter within its composition.

Cronia et al. discloses a similar pleated media comprising particulate sodium bicarbonate within its composition in Fig. 1 and col. 1, line 10 to col. 3, line 44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the particulate sodium bicarbonate of Cronia et al. into the pleated filter media of JP 2001-62232 to provide a filter media that is capable of removing odors from the airstream passing therethrough, as suggested by Cronia et al. in col. 1, lines 12-14.

***Allowable Subject Matter***

10. Claim 22 is allowed.

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11. Claims 10-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 10, the prior art made of record does not teach or fairly suggest the filter product of claim 9 wherein the side media engagement elements of the support frame extend at an angle away from the sidewall on each support frame side component.

With regard to claims 11-16, the prior art made of record does not teach or fairly suggest the filter product of claim 9 wherein each hold down frame side component comprises a gasket side wall that is spaced from its respective side media engagement elements by another wall portion interconnected between the side media engagement elements and the spaced gasket side wall to define a channel in between, wherein the side wall of the support frame is positioned within the side wall channel of the hold down frame.

With regard to claims 17-20, the prior art made of record does not teach or fairly suggest the filter product of claim 1 wherein the end frame components of the support

frame and the hold down frame include end media engagement elements that extend toward one another and define a filtration media compression zone between them for securing the filtration media in place proximal to an end of the filtration media.

With regard to claim 22, JP 2001-62232 discloses a filter product comprising filtration media (11) and a frame assembly (13) provided along at least a portion of the filtration media, the filter product having an input face and a output face of the filtration media for permitting carrier fluid to pass therethrough while removing a filtrate component, the frame assembly comprising a support frame (15) having a length and extending along at least the portion of the filtration media, the support frame comprising at least one media engagement element (17) arranged in supporting contact with and proximal to an edge of the filtration media on a first side of the filtration media, and a hold down frame (14) having a length and extending along at least the portion of the filtration media, the hold down frame comprising at least one media engagement element (16) arranged in supporting contact with and proximal to the edge of the filtration media on a second side of the filtration media, wherein the support frame and the hold down frame are interactively assembled together (21,22,23) to provide the frame assembly proximal to at least a portion of the edge of the filtration media with the media engagement elements of the support frame interacting with the media engagement elements of the hold down frame to support the filtration media in between by contacting the filtration media at its first and second sides, and both the support frame and the hold down frame further including a wall portion (14f,15f) spaced from its

media engagement elements in Figs. 1-9 and paragraphs [0007] to [0021] of the English language translation.

The prior art made of record does not teach or fairly suggest the media engagement elements being angles away from the wall portions of the support frame or the hold down frame.

### ***Conclusion***

13. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 30 June 2003 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (703) 308-6240. The examiner can normally be reached on Tuesday - Friday (7:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (703) 308-1261. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jason M. Greene  
Examiner  
Art Unit 1724



jmg  
August 26, 2003

DUANE SMITH  
PRIMARY EXAMINER

  
9-2-03